DESIGNING QUALITY PROFESSIONAL LEARNING OPPORTUNITIES

Emily Bryant Hare
UNC-Greensboro
elbryant@uncg.edu
DISCUSSION ON “PD”

1. What types of professional development have you experienced?
2. What types of experiences have you had that have been frustrating? Why?
3. Think back to the best experience you have ever had with professional development (bonus points for math specific)? Why was it such a good experience?
Other fields, from medicine and management to the military, do a far better job of providing ongoing learning opportunities and support for their professionals. But as this report shows, in education, professional learning in its current state is poorly conceived and deeply flawed. Teachers lack time and opportunities to view each other’s classrooms, learn from mentors, and work collaboratively. The support and training they receive is episodic, myopic, and often meaningless. Meanwhile, states and districts are spending millions of dollars on academic courses disconnected from the realities of classrooms, but little on helping educators find solutions to the day-to-day challenges they face. *It is time for our education workforce to engage in learning the way other professionals do—continually, collaboratively, and on the job—to address common problems and crucial challenges where they work.* (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009)
IN THE NEXT 30-40 MINUTES…

1. 5 Components of High Quality Mathematics Professional Development
2. NC Teachers’ Experiences with Mathematics Professional Development
3. HQMPD Protocols for Professional Learning Activities
WHAT MAKES GOOD PD?

5 Components of
High Quality Mathematics Professional Development (HQMPD)
CONSENSUS ON GENERAL EFFECTIVE PD

RESEARCH ON MATHEMATICS SPECIFIC PROFESSIONAL DEVELOPMENT


5 COMPONENTS OF HQMPD

- Content Specific
- Pedagogical Model (Role of Facilitator)
- Teacher Learning Environment (Learning Activities)
- Attention to Context
- Overall Structure
• Content focus is essential!!!
  (Desimone, 2009; Darling-Hammond et al., 2009; Elmore, 2002; Guskey & Yoon, 2009)

• Does NOT mean pedagogy is not important but should be thought about through a mathematics lens.
  (Guskey & Yoon, 2009; Sowder, 2007)
PEDAGOGICAL MODEL (ROLE OF THE FACILITATOR)

- Model research-based instructional practices.
  - Example: NCTM’s Essential Teaching Practices
  - Teachers are more likely to try new practices they have seen modeled

(Darling-Hammond et al., 2009)
TEACHER LEARNING ENVIRONMENT
(LEARNING ACTIVITIES)

• Collaborative environment
• Norms of discussing mathematics teaching in learning
  • What students and teachers CAN do!
• Multiple perspectives and/or “outside experts”
  (Guskey & Yoon, 2009; Putnam & Borko, 2000)

Examples:
• Video Clubs (Borko, Jacobs, Eiteljorg, & Pittman, 2008)
• Doing/Analyzing Math Tasks (Jacobs, et al., 2007)
• Anticipating/Analyzing Student Work
• Rehearsing (Borko, Jacobs, Eiteljorg, & Pittman, 2008, Horn, 2010; Webb, Wilson, Reid, & Duggan, 2015)
ATTENTION TO CONTEXT

• What does this mean?
ATTENTION TO CONTEXT

• Connected to local policy and initiatives (Guskey & Yoon, 2009)
• Differentiation for teachers- Meeting teachers where they are!
• Bringing the classroom into the PD (Ball & Cohen, 1999)
  • Artifacts from participants’ classrooms
OVERALL STRUCTURE

• Formal
• Intensive
  • Greater than 30 hours AT LEAST (some say 50-60)
• Ongoing
  • Follow-up to support change in the classroom
• Incentivized
  • Endorsed by district, school, etc.

(Darling-Hammond et al., 2009; Desimone, 2009; Elmore, 2002; Guskey & Yoon, 2009).
GREAT! WE KNOW WHAT GOOD MATH PD IS… PROBLEM SOLVED!
What kind of professional development are teachers across the state of North Carolina experiencing?
Professional Development

Q8.1 Please rate how strongly you agree or disagree with statements about professional development in your school.

a. Sufficient resources are available for professional development in my school.
   - North Carolina
   - Number of responses: 104494 / dk = 4014

b. An appropriate amount of time is provided for professional development.
   - North Carolina
   - Number of responses: 105860 / dk = 2572

c. Professional development offerings are data driven.
   - North Carolina
   - Number of responses: 94007 / dk = 14349

d. Professional learning opportunities are aligned with the school's improvement plan.
   - North Carolina
   - Number of responses: 94540 / dk = 13758

e. Professional development is differentiated to meet the individual needs of teachers.
   - North Carolina
   - Number of responses: 101483 / dk = 7016

f. Professional development deepens teachers' content knowledge.
   - North Carolina
   - Number of responses: 104082 / dk = 4291

g. Teachers have sufficient training to fully utilize instructional technology.
   - North Carolina
   - Number of responses: 104650 / dk = 3754

h. Teachers are encouraged to reflect on their own practice.
   - North Carolina
   - Number of responses: 105710 / dk = 2625

i. In this school, follow up is provided from professional development.
   - North Carolina
   - Number of responses: 101273 / dk = 6971

j. Professional development provides ongoing opportunities for teachers to work with colleagues to refine teaching practices.
   - North Carolina
   - Number of responses: 104013 / dk = 4250

k. Professional development is evaluated and results are communicated to teachers.
   - North Carolina
   - Number of responses: 98211 / dk = 10068

l. Professional development enhances teachers' ability to implement instructional strategies that meet diverse student learning needs.
   - North Carolina
   - Number of responses: 104109 / dk = 4100

m. Professional development enhances teachers' abilities to improve student learning.
   - North Carolina
   - Number of responses: 104531 / dk = 3633

*Screenshot from the NC Teaching Working Conditions Survey*
Professional Development

In the following section you will be asked to reflect on your professional development experiences. Teachers and leaders have many different opportunities to engage in professional learning in both formal and informal settings. For the purposes of the next questions on professional development, we are referring to PD that is formal, collective, and sponsored by your school or district. By this we mean that we only want you to reflect on formal professional development programs you have experienced with multiple participants that was sanctioned by a school, district, state, national, or other organization (e.g. professional conferences). For this survey, we are not referring to individual teacher/leader learning that is self-directed, such as university course work, Twitter chats, professional learning communities (PLCs), etc.

<table>
<thead>
<tr>
<th>Coded Grade Band</th>
<th>ELEM</th>
<th>MS</th>
<th>HS</th>
<th>MULTI</th>
<th>ALL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>65</td>
<td>37</td>
<td>85</td>
<td>18</td>
<td>205</td>
</tr>
<tr>
<td>Suburban</td>
<td>42</td>
<td>22</td>
<td>28</td>
<td>6</td>
<td>98</td>
</tr>
<tr>
<td>Urban</td>
<td>34</td>
<td>7</td>
<td>17</td>
<td>5</td>
<td>63</td>
</tr>
<tr>
<td>TOTAL</td>
<td>141</td>
<td>66</td>
<td>130</td>
<td>29</td>
<td>366</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>Less than 10 hours</td>
<td>10-20 hours</td>
<td>20-30 hours</td>
<td>More than 30 hours</td>
</tr>
<tr>
<td>----------------</td>
<td>--------</td>
<td>--------------------</td>
<td>-------------</td>
<td>-------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Rural (205)</td>
<td>18.54</td>
<td>48.78</td>
<td>17.07</td>
<td>9.76</td>
<td>5.85</td>
</tr>
<tr>
<td>Suburban (98)</td>
<td>16.33</td>
<td>55.10</td>
<td>23.47</td>
<td>3.06</td>
<td>2.04</td>
</tr>
<tr>
<td>Urban (63)</td>
<td>9.52</td>
<td>60.32</td>
<td>17.46</td>
<td>6.35</td>
<td>6.35</td>
</tr>
<tr>
<td><strong>Total (366)</strong></td>
<td><strong>16.39</strong></td>
<td><strong>52.46</strong></td>
<td><strong>18.85</strong></td>
<td><strong>7.38</strong></td>
<td><strong>4.92</strong></td>
</tr>
<tr>
<td>PD: SETTINGS (RELATIVE FREQUENCY)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Multi-day Summer Institute</th>
<th>One-day Workshop</th>
<th>After School Meeting</th>
<th>Conferences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural (205)</td>
<td>18.54</td>
<td>45.85</td>
<td>39.51</td>
<td>22.44</td>
</tr>
<tr>
<td>Suburban (98)</td>
<td>14.29</td>
<td>44.90</td>
<td>43.88</td>
<td>14.29</td>
</tr>
<tr>
<td>Urban (63)</td>
<td>22.22</td>
<td>44.44</td>
<td>63.49</td>
<td>22.22</td>
</tr>
<tr>
<td>Total (366)</td>
<td>18.03</td>
<td>45.36</td>
<td>44.81</td>
<td>20.22</td>
</tr>
</tbody>
</table>
## PD: FOCUS (RELATIVE FREQUENCY)

<table>
<thead>
<tr>
<th></th>
<th>Curriculum</th>
<th>Core Practices</th>
<th>Math Content</th>
<th>Standards and Pacing</th>
<th>Analyzing Student Work</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural (205)</td>
<td>29.27</td>
<td>42.44</td>
<td>33.17</td>
<td>40.98</td>
<td>22.93</td>
<td>5.37</td>
</tr>
<tr>
<td>Suburban (98)</td>
<td>33.67</td>
<td>50.00</td>
<td>37.76</td>
<td>50.00</td>
<td>22.45</td>
<td>3.06</td>
</tr>
<tr>
<td>Urban (63)</td>
<td>34.92</td>
<td>50.79</td>
<td>31.75</td>
<td>65.08</td>
<td>25.40</td>
<td>1.59</td>
</tr>
<tr>
<td>Total (366)</td>
<td>31.42</td>
<td>45.90</td>
<td>34.15</td>
<td>47.54</td>
<td>23.22</td>
<td>4.10</td>
</tr>
</tbody>
</table>
### PD: PROFESSIONAL LEARNING ACTIVITIES (RELATIVE FREQUENCY)

<table>
<thead>
<tr>
<th></th>
<th>Reflecting on Video of Self</th>
<th>Reflecting on Video of Others</th>
<th>Doing Math Tasks</th>
<th>Analyzing Student Work</th>
<th>Anticipating</th>
<th>Rehearsing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural (205)</td>
<td>3.41</td>
<td>14.63</td>
<td>41.46</td>
<td>31.71</td>
<td>42.93</td>
<td>19.02</td>
</tr>
<tr>
<td>Suburban (98)</td>
<td>3.06</td>
<td>15.31</td>
<td>45.92</td>
<td>34.69</td>
<td>38.78</td>
<td>19.39</td>
</tr>
<tr>
<td>Urban (63)</td>
<td>6.35</td>
<td>19.05</td>
<td>52.38</td>
<td>39.68</td>
<td>50.79</td>
<td>22.22</td>
</tr>
<tr>
<td>Total (366)</td>
<td>3.83</td>
<td>15.57</td>
<td>44.54</td>
<td>33.88</td>
<td>43.17</td>
<td>19.67</td>
</tr>
</tbody>
</table>
HMMM... I HAVE MORE QUESTIONS...

• TWC Survey- Everything is hunkydory!
• NC2ML Survey- Low percentages...
HMMM... I HAVE MORE QUESTIONS...

- TWC Survey - Everything is hunky-dory!
- Examples of Learning Activities - LOW percentages... **WHY?**

➢ What do stakeholders want out of professional development?
➢ What are our expectations for professional development?
HOW DO WE INCREASE ACCESS TO HQMPD?
RESOURCES GALORE!

- Nc2ml.org
- tools4NCteachers.org
- "Blue Canvas"
RESOURCES GALORE!

- nc2ml.org
- tools4NCteachers.org
- “Blue Canvas”

So What?
HQMPD LEARNING ACTIVITY PROTOCOLS (DRAFTY DRAFTS)

- Launching Rehearsals
- Analyzing Student Thinking
- Video Clubs

**Still to come:**
- Monitoring/Questioning Rehearsals
- Discussion Rehearsals
- Anticipating Student Work

[https://tinyurl.com/HQMPD-ncctm18](https://tinyurl.com/HQMPD-ncctm18)
HQMPD LEARNING ACTIVITY PROTOCOLS (DRAFTY DRAFTS)

I need YOUR help!
Let’s co-construct these together!
Interested in this work?
Submit your contact information to stay in the loop!

https://tinyurl.com/HQMPD-contact
Q&A
Submit your contact information:
https://tinyurl.com/HQMPD-contact

Protocols:
https://tinyurl.com/HQMPD-ncctm18

Emily Bryant Hare
UNC-Greensboro
elbryant@uncg.edu

*All pictures retrieved from PIXABAY CCO Creative Commons unless otherwise noted.